

Interagency Arctic Research Policy Committee: Staff Meeting  
11a-1p, March 17, 2011

**Location:**

White House Conference Center, Lincoln Room  
726 Jackson Place  
Washington, DC

**Attendees:** Meeting co-chaired by Brendan Kelly (OPP/NSF) and Kate Moran (OSTP)

William Fitzhugh	Smithsonian
Jack Kaye	NASA
Malcolm Williams	USCG/DHS
Marya Levintova	HHS/NIH
Lisa Matthews	EPA
Louie Tupas	USDA
Simon Stephenson	OPP/NSF
Peter Murdoch	USGS/DOI
John Farrell	USARC
John Stubstad	DoD
Tim Ragen	Marine Mammal Comm.
Nikoosh Carlo	OPP/NSF
Jon Berkson	USCG/DHS
Christina Hoefomit	USCG/DHS
Brendan Kelly	OPP/NSF
Ashley Chappell	NOAA
Kate Moran	OSTP

**Agenda:**

1. Welcome & review of meeting goals/agenda (5 minutes)
2. Introduction of meeting members (10 minutes)
3. Synopsis of Arctic issues for the each agency (45 minutes)
4. Discussion of potential IARPC Principals' meeting agenda items:
  - a. IARPC NSTC Charter (5 minutes)
  - b. Preparation of an Arctic budget cross-cut per Arctic Research Policy Act (10 minutes)
  - c. Key interagency partnerships in Arctic research for FY12 and FY13 (15 minutes)
  - d. National Ocean Policy Arctic Strategic Action Plan (10 minutes)
  - e. Development of a national Arctic 5-year research plan per ARPA (15 minutes)
  - f. Set dates and schedule for future meetings (5 minutes)

**Summary of Action Items:**

- Send comments on NSTC IARPC charter to Kate/Brendan by Monday, March 28<sup>th</sup>; please brief your Principals on the charter.
- Send comments on a potential Arctic budget cross-cut to Kate/Brendan by Monday, March 28<sup>th</sup>.
- A draft of the potential IARPC interagency projects will be circulated soon; please be ready to review and promptly respond since we are on a tight timeline before the first 2011 IARPC Principals' meeting on April 26<sup>th</sup>.

## Meeting Minutes:

1. Welcome & review of meeting goals/agenda
  - a. Kate Moran (OSTP)
    - i. IARPC moved under NSTC structure
    - ii. There is a new Exec. Dir., Pedro Espina, at NSTC (last month)
    - iii. Issues of importance to the administration:
      1. National Ocean Policy – the Arctic has a special focus
      2. USGCRP Arctic is changing faster than any other place
      3. President's Task Force on Climate Change Adaptation – the Arctic and Alaska are important in this effort
  - b. Brendan Kelly (NSF)
    - i. NSF Dir. remains the chair of IARPC
    - ii. Brendan leads efforts at NSF for IARPC issues
2. Introduction of meeting members
  - a. Staff members introduced themselves
  - b. on the phone Cheryl Rosa, Arctic Research Commission (Anchorage location)
3. Synopsis of Arctic issues for the each agency
  - a. Smithsonian (Bill Fitzhugh) – Collaboration with other agencies in areas of social and natural science research and education is central to the SI Arctic mission and is conducted largely by its Arctic Studies Center (ASC), with its focus primarily in cultural heritage, archaeology and human impacts of climate change, and preservation and mobilization of indigenous cultural knowledge and languages. Other Arctic-focused activities are conducted by natural scientists at the SI National Museum of Natural History, collection and public program managers at the National Museum of the American Indians and at the SI Undersecretary for Science Office (Smithsonian Polar Diving Program). Total SI Arctic budget is ca. 1M\$, including four permanent ASC staff positions *for arctic anthropology and cultural research, collection care, publication, and education in two offices in Washington DC and Anchorage, Alaska*. Major SI inter-agency collaborators for its Arctic programs include NOAA, NSF, and DOI (Park Service, BIA, BLM). SI is very active in publications, education and outreach, and other public programs aimed at disseminating its activities and collection resources worldwide, but with the special focus on Alaska and its indigenous communities. Recent exhibitions include *Arctic: A Friend Acting Strangely* (with NOAA funding); *Yuungnaqpiallerput: Masterworks of Yup'ik Science and Survival* (with OPP/NSF), *Polar Science* in our Ocean Hall (with NOAA), and *Living Our Cultures: First Peoples of Alaska* in Anchorage. In addition, Smithsonian continues to be a major player in the post-International Polar Year (IPY) 2007-2008 social and natural science research and publication, as it also was in the IPY planning and implementation. The main SI forthcoming Arctic activity will be a large interdisciplinary conference, "Arctic/Inuit/Connection: Learning from the Top of the World," which will bring 500-600 Arctic experts, primarily in cultural and social fields, and numerous indigenous participants from Alaska, Canada, Greenland and Russia to SI museums Oct 24-28th, 2012. Canadian and Danish Embassies are

partners. The conference will provide many opportunities for IARPC programming and outreach.

- b. Dept. Homeland Security/Coast Guard (Jon Berkson) – Coast Guard’s priorities are the performance of our statutory missions and regulatory functions in the Arctic. We have six operational-level priorities: (1) ensure proper maritime legal regimes are in place for the Arctic; (2) enhance federal, state, local, tribal, and industry partnerships; (3) use a “whole of Arctic” approach to meet national policy objectives in the Arctic; (4) develop an integrated Maritime Domain Awareness (MDA) program that will fuse the expertise and input from our tribal, local, state, federal, and industry partners; (5) develop appropriate capabilities that have sufficient capability to execute our missions at an acceptable level of risk, and that are adaptive to the drastic changes in environmental conditions; and (6) ensure that USCG’s force structure is appropriately sized, trained, equipped, and postured to meet national Arctic mission and regulatory requirements as the various seasons demand. In terms of more specific priorities, USCG has specific needs for (1) improved communications, (2) enhanced Maritime Domain Awareness, (3) improved oil spill response detection, monitoring, and response capabilities, and (4) improved support infrastructure.
  - i. Malcolm Williams (USCG) added – There is a lack of infrastructure to support air operations on the North Slope for search and rescue, and the nearest Coast Guard air station is in Kodiak, AK. The Coast Guard is currently engaged in several initiatives impacting Arctic operations. The Coast Guard worked with other nations in the Arctic Council to develop a draft multilateral search and rescue agreement for the Arctic that is expected to be approved in May. Coast Guard representatives to the International Maritime Organization (IMO) are working to develop mandatory requirements for vessel construction, design and operation in the Arctic to improve marine safety. DHS/USCG is currently reviewing a High Latitude Study that is expected to include an analysis of the functional requirements to carry out USCG’s missions in the Arctic; and an analysis of operational gaps and ways to address those gaps. A range of future demand scenarios include a mass search and rescue incident or an Arctic oil spill. In regard to future research, the USCCG would benefit from research on how to improve communication infrastructure, and from efforts to improve databases and provide better real-time data, including oil spill response data, i.e. how to track the extent of a spill and how to find it under the ice. USCG also could benefit from research on the impact of vessel operations, such as the impacts of vessel traffic on marine mammal migratory paths. There is an item in the proposed FY2012 DHS budget to study icebreaking requirements for the US in Polar Regions.
- c. NASA (Jack Kaye) - 13 major operating satellites orbit the poles 6x/day. NASA does not have a specific mission to the Arctic, but they are present there and have data on sea ice extent (no ice sheet thickness b/c one of the satellites died). They have conducted field work via the NASA P3 for Operation Ice Bridge (part of CReSIS), which is on its way to Greenland now. NASA ESPO Impacts of Climate change on the

Eco-Systems and Chemistry of the Arctic Pacific Environment ship borne project (ICESCAPE) will be conducting research, including looking at the interface between sea and ice, in the Beaufort and Chukchi Seas, during the summer of 2010 and 2011. Solicitation out now for research investigating the interface between sea and ice, e.g. dynamic ice sheet modeling and observation to predictive capabilities.

- d. NIH/HHS (Marya Levintova) - NIH does not have an Arctic specific budget, but estimates \$34M (from approximately 17 NIH institutes and centers) funded Arctic health biomedical and behavioral research projects (An additional \$3M in FY2010 was from ARRA funds). One of the areas that has been a priority for the NIH-wide efforts in the biomedical and behavioral research in the Arctic is behavioral and mental health research. In addition, HHS led a delegation to the 1<sup>st</sup> Arctic Health Ministerial in February 2011, where the issues of behavioral health and infectious diseases were included in the declaration. Institute of Medicine and the USARC have been trying to move an IOM study forward on behavioral and mental health. These efforts have not been successful so far, due to lack of local/tribal community and research funding support. Perhaps exploring the NIH common fund (% of each Institute's budget) being directed to Arctic Health is possible; may require a mandate from a higher body. N.B. NIH funds ~\$90M to Canada each year that is likely Arctic but not coded as Arctic.
- e. EPA (Lisa Matthews) – EPA does not have an Arctic program, but some minor involvement in Arctic-related activities. EPA has done work previously on air toxics in lakes in the Arctic with the Park Service. There is some work with Tribal groups in Alaska - evaluating Native food (e.g. locally gathered berries) and decreasing available and/or nutritional content related to climate change (NCER Tribal grants), and on contaminants in fish, particularly how tribes can use a self-assessment dietary questionnaire to avoid excessive consumption of contaminants in certain fish species (RARE project). EPA has done some atmospheric modeling and measurement methods support related to black carbon that has implications for the Arctic. Also some research focused on use of experimental data and models to analyze and forecast how arctic systems will respond to climate change (with Marine Biological Laboratory and Georgia Tech).
- f. USDA (Louie Tupas) – USDA does not have an Arctic program, because there are no major stocks or agriculture there, but potential exists for this to change in the future. USDA runs the Soil Climate Analysis Network (SCAN) and SNOTEL (snow telemetry) analysis, which don't have fixed budgets; they have to shut down if funds drop. Mentioned that a USDA representative from agriculture and forestry is stationed in Alaska.
- g. NSF (Simon Stephenson) - Arctic System Science program has worked on partnerships to understand global linkages. For example, Decadal and Regional Climate Prediction using Earth System Models (EaSM) is a partnership with USDA and DOE. NSF also collaborates with NOAA on the Shelf Basin Interaction (SBI) Project whose efforts converge on the zone of the outer shelf, shelf break, and

slope, where the greatest response to warming and altered arctic ice cover is expected. Ocean acidification program is a partnership with DOE (FY12 solicitation). The Arctic Observing Network (partner NOAA) is still going; new focus will be on the design process, gap in the satellite-based observing and in data and communications. Noted that the logistics component is 40% of the Arctic budget.

- h. DOI (Pete Murdoch) – DOI is responsible for 1 of 5 acres of the US. Noted the need to include subarctic in the definition of Arctic that IARPC is using. DOI sees a need for research in resource management decision making. Through US Fish & Wildlife Service, they have established a new initiative for Climate Science Centers (CSC) in 7 regions. Regions have multiple Landscape Conservation Cooperatives, e.g. the Arctic Landscape Conservation Cooperatives (LCC) will link between resource managers and researchers. Most research is related to wildlife changes due to climate change, e.g. polar bear, walrus, migratory birds, erosion in the Teshekpuk lake area. Other projects: North Slope Science Initiative (NSSI) has worked to develop maps of the area and track landscape changes; the CSC has been monitoring lakes and rivers in the Yukon River Basin (Yukon Flats). Suggested connecting with the Alaska Executive Climate Roundtable, a joint initiative between US Fish & Wildlife Service and USGS. DOI goal is to focus on data management, provide adaptation support to communities, and manage mineral resources in the Arctic. Part of DOI's mission is to maintain culture and this translates to subsistence culture which links to health.
- i. Arctic Research Commission (John Farrell) – ARC has a great interest in the revitalization of IARPC. ARC distributes their goals and objectives report every 2 years in addition to holding workshops. ARC budget is very small.
- j. DoD (John Stubstad) – DOD conducts Arctic and sub-Arctic research to enhance capabilities to conduct military missions in Arctic and sub-Arctic climate zones, support the Civil Works mission of the U.S. Army Corps of Engineers and to reduce maintenance costs for existing military facilities as well as construction costs for any future military facilities that would be built in those climate zones. DoD has a shared responsibility, in cooperation with DHS/U.S. Coast Guard and others, for ensuring appropriate Maritime Domain Awareness (MDA) is maintained for all maritime regions surrounding the U.S. homeland, including those in Arctic and sub-Arctic regions.
- k. Marine Mammal Commission (Tim Ragen) – The MMC, established under the Marine Mammal Protection Act of 1972 (MMPA), has 3 Commissioners appointed by the President, a Committee of Scientific Advisors, and a small staff. The Commission provides oversight of the implementation of the MMPA by Federal agencies and runs a small research program with a budget of 100-200K. The Commission's emphasis is on the study of marine mammals relative to human threats, including the effects of climate change. In addition to the MMPA they focus on questions related to the implementation of the endangered species act and the National Environmental Policy Act. Some of their concerns for arctic marine mammals are the noise from oil/gas exploration and acquisition and the impact of

increased fishing and shipping. One of their goals is to look out for the interests of Alaska Natives, which translates into work on maintaining subsistence opportunities. MMC has international partnerships with Russia and Canada and thinks that the new National Ocean Policy and marine spatial planning can be used to bring stakeholders together.

- I. NOAA (Ashley Chappell) – Go to [www.arctic.noaa.gov](http://www.arctic.noaa.gov) to download the new Arctic Strategies document (March 2011). NOAA Arctic Strategies document highlights six goals: forecast sea-ice; strengthen foundational science to understand and detect arctic climate and ecosystem changes; improve weather and water forecasts and warnings; enhance international and national partnerships; improve stewardship and management of ocean and coastal resources in the arctic; and advance resilient and healthy arctic communities and economies, e.g. climate adaptation strategies and safe navigation in the Arctic (specifically oil spill response). National Ice Center (NIC) partnership is collaboration between US Navy, NOAA, and USCG. International partnerships include working with PAME, a subcommittee of the Arctic Council, and RUSALCA, the Russian-American Long-term Census of the Arctic ([www.arctic.noaa.gov/aro/russian-american/](http://www.arctic.noaa.gov/aro/russian-american/)).

4. Discussion of potential IARPC Principals' meeting agenda items: staff needs to suggest an agenda for the April 26th (2-5p) Principals' meeting, options below:

- a. IARPC NSTC Charter

- i. Draft hardcopy distributed
- ii. Comments:
  1. Make it clear in the charter what the relationships are between USGCRP and other NSTC subcommittees, because this will help those briefing their Principals.
  2. Please define Arctic broadly, meaning include subarctic regions.
- iii. **ACTION:** provide comments to Kate/Brendan by Monday, March 28<sup>th</sup>; please brief your Principals on the charter.

- b. Preparation of an ARCTIC BUDGET cross-cut per Arctic Research Policy Act

- i. OMB will ask for this from the agencies.
- ii. Comments:
  1. Define:
    - a. inclusion rules
    - b. rules for double counting
    - c. the Arctic region
    - d. differentiate between science research and logistics
  2. Further breakdowns might be necessary, e.g. ice breakers
  3. For proposal driven funding the reporting will be slow, e.g. NIH can now only report thru FY10
  4. Need to know what the intent for knowing these numbers is and how the information is going to be used.

- iii. **ACTION:** please get a response to the arctic budget cross-cut idea from your agencies by March 28<sup>th</sup>
- c. Key INTERAGENCY PARTNERSHIPS in Arctic research for FY12 and FY13
  - i. Goal is to identify projects that can be enhanced by collaboration with other IARPC agencies
  - ii. Suggestions:
    1. National Ocean Policy (John Farrell) – NSTC Subcommittee on Ocean Science and Technology (SOST) is charged with creating strategic action plans for the 8 regions.
    2. USGCRP themes are to enhance the arctic observing network (and predict arctic change), marine transportation system, mapping and charting in the arctic, stewardship in the development of natural resources, domestic and international partnerships. Resilience of arctic communities is a common thread.
    3. NSF (Simon Stephenson) - AON, Ecosystem change in the Chukchi and Beaufort Sea areas, EaSM; sustainability (strong focus on community health); adapting, social and behavioral change.
    4. Smithsonian (Bill Fitzhugh) - informal and formal education needs to be included
    5. USGS (Peter Murdoch) – there are baseline research needs for interdisciplinary, multi-scale research.
    6. High dependence of the agencies on satellite information.
    7. Oil/gas - BOEMRE, NOAA, FW are coming together and so there are opportunities
    8. Marine Mammal Commission (Tim Ragen) - IARPC might be the place for a conceptual structure for research in the Arctic, starting with what everyone is doing (must start here).
    9. HHS/NIH (Marya Levintova) - Explore potential to engage in the interagency activities in human health research.
  - iii. **ACTION:** Kate/Brendan will send out a draft of possible projects that will be circulated next week, Thursday March 24th.
- d. NATIONAL OCEAN POLICY Arctic Strategic Action Plan
  - i. **ACTION:** Tabled due to time
- e. Development of a NATIONAL ARCTIC 5-YR RESEARCH PLAN per ARPA
  - i. **ACTION:** Tabled due to limited time; a draft suggested outline will be distributed in advance of the next meeting
- f. Set dates and schedule for FUTURE MEETINGS
  - i. **ACTION:** IARPC staff members will meet monthly, next meeting will be before the Principals' meeting on April 26th, from 1500-1700.